



RAILROAD COMMISSION OF TEXAS

HEARINGS DIVISION

OIL AND GAS DOCKET NO. 02-0275735

**THE APPLICATION OF PINNERGY, LTD. FOR COMMERCIAL DISPOSAL AUTHORITY
PURSUANT TO STATEWIDE RULE 9 FOR THE YOAKUM SWD LEASE, WELL NO. 1,
YOAKUM, N. (UPR. WILCOX) FIELD, LAVACA COUNTY, TEXAS**

HEARD BY: Brian Fancher - Technical Examiner
Michael Crnich - Legal Examiner

PFD PREPARED BY: Richard D. Atkins, P.E. - Technical Examiner

APPEARANCES:

REPRESENTING:

APPLICANT:

Mark Mayfield
Randy Taylor
John Miller

Pinnergy, Ltd.

PROTESTANTS:

Robert L. Janak
Josephine Janak

Themselves

Gayle Mikulenka-Parenica

Herself

OBSERVER:

Allie Rutledge

Herself

PROCEDURAL HISTORY

Application Filed:	March 2, 2012
Protest Received:	March 13, 2012
Request for Hearing:	April 16, 2012
Notice of Hearing:	April 25, 2012
Hearing Held:	July 13, 2012
Transcript Received:	August 3, 2012
Proposal for Decision Issued:	March 14, 2013

EXAMINERS' REPORT AND PROPOSAL FOR DECISION**STATEMENT OF THE CASE**

Pinnergy, Ltd. ("Pinnergy") requests commercial disposal authority pursuant to Statewide Rule 9 for the Yoakum SWD Lease, Well No. 1, Yoakum, N. (Upr. Wilcox) Field, Lavaca County, Texas.

Notice of the application was published in *The Hallettsville Tribune-Herald*, a newspaper of general circulation in Lavaca County, on February 29, 2012. Notice of the application was sent to the Lavaca County Clerk, offset operators within ½ mile and to the surface owners of each tract which adjoins the disposal tract on March 2, 2012.

The application is protested by surface owners adjacent to the tract on which the proposed disposal well is located.

DISCUSSION OF THE EVIDENCE**Applicant's Evidence**

The proposed disposal well is located on a 9.53 acre tract adjacent to and east of State Highway 95. The tract is located in a rural area approximately three miles north of the town of Yoakum, Texas. Pinnergy plans to drill a new injection well down to 7,400 feet. The well will have 10 3/4" surface casing set at 1,100 feet that will be cemented to the surface with 486 sacks of cement. Pinnergy proposes to run 7" production casing to 7,400 feet that will be cemented to the surface with 2,401 sacks of cement. The well will be equipped with 4 1/2" tubing and packer set at 6,050 feet (See attached Pinnergy Exhibit No. 20 - Wellbore Diagram).

The proposed disposal interval is located in the Yegua and Upper Wilcox formations between 3,200 feet and 7,400 feet. The disposal interval is continuous and has over 400 feet of sand development. The interval is suitable for disposal and is used for disposal in other area wells. There is more than 1,000 feet of shale above the proposed disposal interval, which will serve to prevent the migration of injected fluids out of the disposal interval. Pinnergy is proposing to only inject into the Upper Wilcox formation initially and requests authority to dispose of a maximum of 25,000 barrels of salt water and RCRA¹ exempt waste per day with a maximum surface injection pressure of 1,600 psig.

The Commission Groundwater Advisory Unit ("GAU") recommends that usable-quality groundwater be protected down to a depth of 1,050 feet below the land surface.

¹ Resource Conservation and Recovery Act: Examples of RCRA exempt oil and gas waste includes produced water, drilling fluids, frac flowback fluids, rigwash and workover wastes.

The base of the underground source of drinking water ("USDW") is 1,650 feet. Pinnergy submitted a GAU letter dated March 9, 2012, which stated that injection into the proposed injection interval will not harm usable-quality groundwater. There are no wells located within the 1/4 mile radius of review. There is one dry hole well located within the 1/2 mile radius of review that was plugged in 1985. The well is cased and cemented to protect usable-quality groundwater and properly plugged.

The proposed Pinnergy disposal facility is located in the western portion of Lavaca County. The Eagle Ford formation development core area encompasses the western portion of Lavaca County and the two adjoining counties of De Witt and Gonzales. Pinnergy submitted an area map depicting several hundred permitted or drilled Eagle Ford formation horizontal wells within a ten mile radius of the proposed disposal well.

Pinnergy also submitted completion information on five recently potentialed area Eagle Ford formation wells. The wells were fraced with an average of 70,000 barrels of water, which is approximately 570 truck loads. Pinnergy submitted the July 2012 oil proration schedule for area Eagle Ford fields that showed an average of 350 BWPD is produced by each well. Pinnergy opined that the Eagle Ford formation trend wells will produce significant volumes of frac and produced water. Pinnergy believes that additional disposal facilities are necessary to accommodate the Eagle Ford formation development that is ongoing in Lavaca County.

Pinnergy operates 58 vacuum trucks and stated that their trucks are experiencing from one to three hour wait times at other disposal facilities in the area. In addition, there is only one active disposal facility located within a ten mile radius of the proposed facility. Pinnergy contends that the use of the proposed disposal well will reduce travel time and miles traveled by its waste hauling trucks, resulting in reduced costs to operators.

The Facility

The area surrounding the proposed injection facility is rural farm and ranch land. Access to the disposal facility will be off of State Highway 95, which is a paved two lane public highway with shoulders on both sides. Pinnergy has already received a TXDOT permit for a driveway off of State Highway 95. At an average injection rate of 10,000 BWPD, there will be approximately 75 trucks per day accessing the facility.

The facility will have a circular driveway and will be of sufficient size to allow trucks access without having to wait on the highway. The surface facility will be manned 24 hours per day. A firewall will be constructed around the entire facility to contain any spilled fluids and the tanks will be equipped with high water level switches to prevent overflows. Additionally, the facility will comply with all of the permit conditions required by Commission staff.

Pinnergy submits that it has the expertise to build and manage the proposed facility, as it currently operates several disposal facilities in Texas. Pinnergy has a current approved Form P-5 (Organization Report), a \$50,000 cash deposit for financial assurance and no pending Commission enforcement actions.

Protestants' Evidence

The protestants are surface owners adjacent to the tract on which the proposed disposal well is located. They believe that the application for the proposed commercial disposal well and facility should be denied. The protestants' evidence fell into several general categories: 1) potential of pollution of surface or subsurface waters; 2) noise, dust and odor nuisances which would result from the operation of the facility; 3) induced seismic activity and 4) increased heavy truck traffic on State Highway 95 near the intersection of County Road 326, causing road deterioration and public safety issues. Collectively, the testimony and statements in opposition to the facility assert that the proposed commercial disposal facility will have adverse effects on traffic safety, property values and the quality of life in and around the area of the intersection of State Highway 95 and County Road 326.

EXAMINERS' OPINION

The examiners recommend that the application for commercial disposal authority be approved. Pinnergy has established:

1. The water resources (surface and sub-surface) are adequately protected from pollution;
2. The proposed injection well will not endanger or injure any oil, gas, or mineral formations;
3. The proposed injection well is in the public interest;
4. A satisfactory showing of financial responsibility, as required under Commission statutes and Commission regulatory requirements.

The well will be completed in a manner which will protect usable-quality groundwater resources and injected fluids will be confined to the injection interval. The proposed disposal well will have cement behind the production casing to surface and there is more than a 1,000 foot thick shale interval overlying the Wilcox disposal interval. Injection will be through tubing set on a packer to confine injected fluids to the Yegua and Upper Wilcox formations between 3,200 feet and 7,400 feet. Finally, there are no wells located within the 1/4 mile radius of review and there is only one dry hole well located within the 1/2 mile radius of review that was plugged in 1985. The well is cased and cemented to protect usable-quality groundwater and properly plugged.

One of the protestants expressed concern that the disposal well could lead to induced seismic activity if there are faults in the area. She asserted, without specific examples, that induced seismic activity had occurred in relation to other disposal wells. Some scientists have theorized that injection by disposal wells across faults could "lubricate" the faults and thereby release stored energy in the form of minor seismic activity below a magnitude of 3.0 on the Richter scale. However, there was no evidence presented at the hearing identifying any faults in the area. Further, even if this theory is valid, several factors reduce the possibility of induced seismic activity in this area. The injection interval is relatively shallow at 3,200 feet and the geologic deposits are relatively young and loosely consolidated. Less stored energy is present in shallow, loosely consolidated deposits. Seismic activity of any kind is less likely to occur in this environment than in an area that is highly faulted with older, more consolidated deposits. Most importantly there was no expert testimony in support of this theory and, as already noted, there was no evidence of any significant faulting in this area.

Approval of the application is in the public interest. The proposed Pinnergy disposal facility is located in the western portion of Lavaca County. The Eagle Ford development core area encompasses all of western Lavaca County and the two adjoining counties of De Witt and Gonzales. Within a ten mile radius around the proposed facility, there are several hundred permitted or drilled Eagle Ford Formation horizontal wells. Completion information on five recently potentialed area Eagle Ford formation wells shows that the wells were fraced with an average of 70,000 barrels of water, which is approximately 570 truck loads. The July 2012 oil proration schedule for area Eagle Ford fields shows that an average of 350 BWPD is produced by each well. The Eagle Ford formation trend wells will produce significant volumes of frac and produced water and additional disposal facilities are necessary to accommodate the Eagle Ford formation development that is ongoing in Lavaca County.

Pinnergy also operates 58 vacuum trucks that are experiencing from one to three hour wait times at other disposal facilities in the area. In addition, there is only one active disposal facility located within a ten mile radius of the proposed facility. The use of the proposed disposal well will reduce travel time and miles traveled by Pinnergy's waste hauling trucks, resulting in reduced costs to operators.

The surface facility will be newly constructed and is of sufficient size to accommodate trucks hauling water to the facility without creating a traffic hazard on the highway that provides access to the facility. The protestants' traffic safety, property value and nuisance concerns are not within the Commission's jurisdiction to address. Compliance with permit conditions will minimize the risk of spills at the facility and will prevent the migration of any spills that occur, thereby protecting both ground and surface water.

FINDINGS OF FACT

1. Notice of the application and hearing was provided to all persons entitled to notice. Notice of the application was published in *The Hallettsville Tribune-Herald*, a newspaper of general circulation in Lavaca County, on February 29, 2012.
2. Notice of the application was sent to the Lavaca County Clerk, offset operators within ½ mile and to the surface owners of each tract which adjoins the disposal tract on March 2, 2012.
3. The proposed injection into the Yoakum SWD Lease, Well No. 1, will not endanger useable quality water.
 - a. The Commission Groundwater Advisory Unit ("GAU") recommends that usable-quality groundwater be protected down to a depth of 1,050 feet below the land surface.
 - b. The well will have 10 3/4" surface casing set at 1,100 feet that will be cemented to the surface with 486 sacks of cement.
 - c. There is more than 1,000 feet of shale above the proposed disposal interval which will serve to prevent the migration of injected fluids out of the disposal interval.
4. The proposed injection into the Yoakum SWD Lease, Well No. 1, will not endanger production from other oil, gas or mineral bearing formations.
 - a. Pinnergy, Ltd. ("Pinnergy") plans to drill a new injection well down to 7,400 feet.
 - b. Pinnergy proposes to run 7" production casing to 7,400 feet that will be cemented to the surface with 2,401 sacks of cement.
 - c. The well will be equipped with 4 1/2" tubing and packer set at 6,050 feet.
 - d. There are no wells located within the 1/4 mile radius of review. There is one dry hole well located within the 1/2 mile radius of review that was plugged in 1985. The well is cased and cemented to protect usable-quality groundwater and properly plugged.

5. Use of the Yoakum SWD Lease, Well No. 1, as a commercial disposal well is in the public interest because it will reduce hauling distances and will provide needed commercial disposal capacity for wells to be drilled, completed and produced in the area of the proposed facility.
 - a. The Eagle Ford formation development core area encompasses all of western Lavaca County and the two adjoining counties of De Witt and Gonzales.
 - b. A ten mile radius map around the proposed disposal facility depicts several hundred permitted or drilled Eagle Ford formation horizontal wells.
 - c. Completion information on five recently potentialed area Eagle Ford formation wells shows that the wells were fraced with an average of 70,000 barrels of water, which is approximately 570 truck loads.
 - d. The July 2012 oil proration schedule for area Eagle Ford fields shows an average of 350 BWPD is produced by each well.
 - e. The Eagle Ford formation trend wells will produce significant volumes of frac and produced water.
 - f. Pinnergy operates 58 vacuum trucks and stated that their trucks are experiencing from one to three hour wait times at other disposal facilities in the area.
 - g. There is only one active disposal facility located within a ten mile radius of the proposed facility.
 - h. Additional disposal facilities are necessary to accommodate the Eagle Ford formation development that is ongoing in Lavaca County.
6. Pinnergy has a current approved Form P-5 (Organization Report), a \$50,000 cash deposit for financial assurance and no pending Commission enforcement actions.

CONCLUSIONS OF LAW

1. Proper notice was issued in accordance with the applicable statutory and regulatory requirements.
2. All things necessary to give the Railroad Commission jurisdiction to consider this matter have occurred.

3. Approval of the application will not harm useable-quality water resources, will not endanger oil, gas, or geothermal resources, will promote further development in this area of Lavaca County and is in the public interest pursuant to Sec. 27.051 of the Texas Water Code.
4. Pinnergy, Ltd. has met its burden of proof and its application satisfies the requirements of Chapter 27 of the Texas Water Code and the Railroad Commission's Statewide Rule 9.

EXAMINERS' RECOMMENDATION

Based on the above findings of fact and conclusions of law, the examiners recommend that the Commission approve the application of Pinnergy, Ltd. for commercial disposal authority pursuant to Statewide Rule 9 for the Yoakum SWD Lease, Well No. 1, as set out in the attached Final Order.

Respectfully submitted,



Richard D. Atkins, P.E.
Technical Examiner



Michael Crnich
Legal Examiner